Jolting during vehicle operation and/or vehicle does not accelerate adequately; no relevant fault codes present

Topic number	LI27.20-P-057339
Version	2
Design group	27.20 Torque converter
Date	11-19-2013
Validity	Vehicles with TRANSMISSION 722.9 and VGS3, Vehicles with TRANSMISSION 722.9 and VGS4,
Reason for change	Remedy adapted.
Reason for block	

Complaint:

Case 1: In certain situations, the vehicle can jolt when the torque converter lockup clutch has the "slip" status.

Case 2: The vehicle occasionally no longer accelerates adequately.

Cause:

There could be a malfunction at the torque converter lockup clutch and/or torque converter lockup clutch valve.

Remedy:

Perform a quick test and primarily check the points "CDI or ME-SFI" and "Fully integrated transmission control". If no relevant fault codes are present, go to "Fully integrated transmission control --> Actual values --> Torque converter lockup clutch" and identify the boundary conditions which exist when the problem occurs (gear range, engine torque, engine speed, etc.). Please observe the applicable specifications when performing the test.

Also observe the diagnostic tree for the special procedure "Closing of torque converter lockup clutch" (see attachment).

When the problem occurs, start the special procedure "Closing of torque converter lockup clutch". Confirm with "Next" and wait until "activated" appears in the bottom line --> The torque converter lockup clutch is not completely closed.

Remedy for case 1:

If the problem no longer exists, continue diagnosis of the component "torque converter". If the problem still exists, please perform further diagnostic routines on the engine.

Remedy for case 2:

If the torque converter slip speed is lower than 10 over a long period with active actuation, the torque converter lockup clutch is functioning correctly. Check whether the cause of the problem is at the engine and/or ESP.

If the torque converter slip speed is higher than 10 over a long period with active actuation, there is probably a fault in the torque converter lockup clutch. Check whether the cause of the problem is at the torque converter lockup clutch valve and/or at the torque converter lockup clutch.

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Supplementary information:

Analysis of noise complaints is not possible using the special procedure "Closing of torque converter lockup clutch"!

The special procedure "Closing of torque converter lockup clutch" is available for the following vehicles:

- vehicles with VGS3 as of DVD07/2013 and
- vehicles with VGS4 as of DVD09/2013.

Attachments	
File	Designation
Fault tree special process Total closing of torque converter lockup clutch.pdf	Fault tree special process "total closing of torque converter lockup clutch"

Symptoms
Power generation / Engine management / Engine running / Runs rough/shakes
Power transmission / Automatic transmission / Automatic transmission - function / Limp-home mode
Power generation / Engine management / Engine running / RPM sticks
Power transmission / Automatic transmission / Automatic transmission - function / General
Power transmission / Automatic transmission / Automatic transmission - function / Poor start-off performance
Power transmission / Automatic transmission / Automatic transmission - function / No power flow
Power transmission / Automatic transmission / Automatic transmission - function / Shuddering during start-off
Power transmission / Automatic transmission / Automatic transmission - function / Shudders
Power transmission / Automatic transmission / Automatic transmission - function / Slips
Power generation / Engine management / Engine performance / Poor/delayed throttle response
Power generation / Engine management / Engine performance / No/poor output
Power generation / Engine management / Engine performance / Poor acceleration

Validity		
Vehicle	Engine	Transmission
*	*	722.909
*	*	722.930
*	*	722.998
*	*	722.931
*	*	722.962
*	*	722.903
*	*	722.960
*	*	722.961
*	*	722.966
*	*	722.967
*	*	722.964
*	*	722.904
*	*	722.995

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*	*	722.965
*	*	722.968
*	*	722.907
*	*	722.950
*	*	722.905
*	*	722.906
*	*	722.908
*	*	722.999
*	*	722.932
*	*	722.963
*	*	722.997
*	*	722.902
*	*	722.996
*	*	722.971
*	*	722.901

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